

IN THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application. An identifier indicating the status of each claim is provided.

Listing of Claims

1. (Currently Amended) ~~Database~~ A database query set-up unit for combining a set of search criteria in order to set up a database query, ~~characterized by~~ comprising:

a contribution stack ~~(1)~~ for storing search criteria provided by at least one user or by the system ~~itself in the~~ order of occurrence, whereby each new search criterion provided by said at least one user or by the system is pushed onto said contribution stack; ~~(1)~~, and

means ~~(7, 9, 11)~~ for deriving a current information state ~~(8, 10, 12)~~ from said contribution stack; ~~(1)~~;

means for relaxing the search constraints of a database query which suppress at least one of said set of search criteria contained in said contribution stack when said current information state is derived,

wherein said means for relaxing the search constraints of a database query select the search criteria to be suppressed according to user profiles, and/or according to context information;

whereby said current information state is formed from a subset of the set of search criteria contained in said contribution stack ~~(1)~~, and ~~whereby~~ said current information state ~~(8, 10, 12)~~ is used for accessing a database.

2. (Currently Amended) ~~Database~~ The database query set-up unit according to claim 1, ~~characterized in that wherein~~ the order in which said search criteria are provided by said at least one user or by the system determines a hierarchy of dependencies between said search criteria.

3. (Currently Amended) ~~Database~~ The database query set-up unit according to claim 1, ~~characterized in that wherein~~ each time a new search criterion is provided, ~~it is checked a~~ determination is made whether said new search criterion refers to an attribute that has already been specified by an earlier search criterion stored in said contribution stack.

4. (Currently Amended) ~~Database~~ The database query set-up unit according to claim 3, ~~characterized in that, in case wherein when~~ said new search criterion refers to an attribute that has already been specified by an earlier search criterion stored in said contribution stack, said earlier search criterion is erased from said contribution stack, and said new search criterion is pushed onto said contribution stack.

5. (Currently Amended) ~~Database~~ The database query set-up unit according to claim 3, ~~characterized in that, in case wherein when~~ said new search criterion refers to an attribute that has already been specified by an earlier search criterion stored in said contribution stack, said earlier search criterion and all search criteria that have been pushed onto the contribution stack afterwards are popped from said contribution stack, and said new search criterion is pushed onto said contribution stack.

6. (Canceled)

7. (Canceled)

8. (Currently Amended) ~~Database~~ The database query set-up unit according to ~~claim 6~~, characterized in that claim 1, wherein at least the most recent search criterion stored in said contribution stack is suppressed when said current information state is derived.

9. (Currently Amended) ~~Database~~ The database query set-up unit according to ~~claim 6~~, characterized in that claim 1, wherein at least the oldest search criterion stored in said contribution stack is suppressed when said current information state is derived.

10. (Currently Amended) ~~Database~~ The database query set-up unit according to ~~claim 6~~, characterized in that claim 1, wherein search criteria that are suppressed when said current information state is derived are erased from said contribution stack.

11. (Currently Amended) ~~Database~~ The database query set-up unit according to ~~claim 6~~, characterized in that claim 1, wherein search criteria that are suppressed when said current information state is derived are ~~only~~ erased from said contribution stack when it turns out that the query yields [[a]] an acceptable result

12. (Currently Amended) The database ~~Database~~ query set-up unit according to ~~claim 6~~, characterized in that claim 1, wherein search criteria that are suppressed when said current information state is derived are maintained within said contribution stack.

13. (Currently Amended) ~~Database~~ The database query set-up unit according claim 1, ~~characterized in that~~ wherein said search criteria are obtained by means of an interactive system based on an artificial language, ~~preferably based on a database query language.~~

14. (Currently Amended) ~~The database~~ Database query set-up unit according to claim 1, ~~characterized in that~~ wherein said search criteria are obtained from said at least one user by ~~means of~~ a natural language dialogue system.

15. (Currently Amended) ~~Method~~ A method for setting up database queries by combining a set of search criteria, ~~characterized by the following steps comprising:~~

[[~~-~~]] pushing search criteria provided by a criteria source ~~at least one user or by the system itself~~ onto a contribution stack (~~+~~) in the order of occurrence[[~~,~~]];

[[~~-~~]] deriving a current information state (~~8, 10, 12~~) from said contribution stack (~~+~~),

whereby said current information state (~~8, 10, 12~~) is formed from a subset of the set of search criteria contained in said contribution stack (~~+~~)[[~~,~~]];

relaxing the search constraints of a database query by suppressing at least one of said set of search criteria contained in said contribution stack when said current information state is derived;

selecting the search criteria to be suppressed according to context information, and/or according to user profiles; and

[[]] setting up a database query corresponding to said current information state
(8, 10, 12).

16. (Currently Amended) ~~Method~~ The method according to claim 15, ~~characterized in that~~
wherein the order in which said search criteria are provided by said criteria source ~~at least one~~
~~user or by the system~~ determines a hierarchy of dependencies between said search criteria.

17. (Currently Amended) ~~Method~~ The method according to claim 15, further ~~characterized~~
~~by each time a new search criterion is provided,~~ comprising checking whether said each new
search criterion refers to an attribute that has already been specified by an earlier search criterion
stored in said contribution stack.

18. (Currently Amended) ~~Method~~ The method according to claim 17, ~~characterized by further~~
comprising erasing said earlier search criterion from said contribution stack, and pushing said
new search criterion onto said contribution stack ~~in case~~ when said new search criterion refers to
an attribute that has already been specified by an earlier search criterion stored in said
contribution stack.

19. (Currently Amended) ~~Method~~ The method according to claim 17, ~~characterized by further~~
comprising:

popping said earlier search criterion and all search criteria that have been pushed
onto the contribution stack ~~afterwards~~ from said contribution stack [[,]]; and

pushing said new search criterion onto said contribution stack ~~in case~~when said new search criterion refers to an attribute that has already been specified by an earlier search criterion stored in said contribution stack.

20. (Canceled)

21. (Canceled)

22. (Currently Amended) ~~Method~~The method according to ~~claim 20, characterized by a step of~~claim 15, further comprising suppressing at least the most recent search criterion stored in said contribution stack when said current information state is derived.

23. (Currently Amended) ~~Method~~The method according to ~~claim 20, characterized by a step of~~claim 15, further comprising suppressing at least the oldest search criterion stored in said contribution stack when said current information state is derived.

24. (Currently Amended) ~~Method~~The method according to ~~claim 20, characterized by a step of~~claim 15, further comprising erasing ~~these~~ search criteria from said contribution stack that have been suppressed when said current information state is derived.

25. (Currently Amended) ~~Method~~The method according to ~~claim 20, characterized by a step of~~claim 15, further comprising maintaining ~~these~~ search criteria within said contribution stack that have been suppressed when said current information state is derived.

26. (Currently Amended) ~~Method~~ The method according to claim 15, ~~characterized by a step of further comprising obtaining said search criteria by means of an interactive system based on an artificial language, preferably based on a database query language.~~

27. (Currently Amended) ~~Method~~ The method according to claim 15, ~~characterized by a step of further comprising obtaining said search criteria from said at least one user by means of~~ based on a natural language dialogue system.

28. (Canceled)

29. (Canceled)

30. (New) A method, stored on a computer-readable medium, that is executed by a processor to combine a set of search criteria in order to set up a database query, the method comprising:

storing search criteria provided by at least one user or by the system in order of occurrence,

pushing each new search criterion provided by said at least one user or by the system onto a contribution stack;

deriving a current information state from said contribution stack;

relaxing the search constraints of a database query which suppress at least one of said set of search criteria contained in said contribution stack when said current information state is derived,

wherein said step of relaxing the search constraints of a database query selects the search criteria to be suppressed according to user profiles, and/or according to context information;

forming said current information state from a subset of the set of search criteria contained in said contribution stack; and

accessing a database using said current information state.

31. (New) A method, stored on a computer-readable medium, for setting up database queries by combining a set of search criteria, the method comprising:

pushing search criteria provided by a criteria source onto a contribution stack in the order of occurrence;

deriving a current information state from said contribution stack,

forming said current information state from a subset of the set of search criteria contained in said contribution stack;

relaxing the search constraints of a database query by suppressing at least one of said set of search criteria contained in said contribution stack when said current information state is derived;

selecting the search criteria to be suppressed according to context information, and/or according to user profiles; and

setting a database query corresponding to said current information state.